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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/700,886

11/21/2000

Gian Luigi Rigosi

US17024

3186

7590

05/19/2004

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EXAMINER

LEE, EDMUND H

ART UNIT

PAPER NUMBER

1732

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/700,886

Applicant(s)

RIGOSI ET AL.

Examiner

EDMUND H. LEE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 5, 6-9 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricci et al (WO 96/14533) in view of Chuang (USPN 6207089). In regard to claim 1, Ricci et al teach the basic claimed process including a process for affecting a coupling between a plastic material and a metal surface (pg 3, ln 10-pg 6, ln 12); applying a powder of an adhesive polymer composition to the metal surface (pg 3, ln 10-pg 6, ln 12); overmolding the metal surface with a plastic material by injection molding (pg 3, ln 10-pg 6, ln 12); and applying heat to the metal surface (pg 3, ln 10-pg 6, ln 12). However, Ricci et al do not teach applying heat to the metal surface after step b, i.e., the step of overmolding, thereby softening or melting the plastic material in contact with the metal surface. Chuang teaches injecting a polymeric particulate composition against a metal preform to form a plastic-metal composite (col 6, lns 34-48; figs 1-12); heating the metal preform and the injected plastic in order to enable both to be softened during the whole process (col 9, lns 23-34); and maintaining the temperature of the metal preform and the plastic at the heated temperature (col 9, lns 23-34)--as a note, this constitutes applying heat to the metal preform after the step of injection molding. Ricci et al and Chuang are combinable because they are analogous

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with respect to injection molding a plastic-metal composite. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the metal surface of Ricci et al after the step of overmolding in order to reduce cycle time and energy costs by ensuring that the metal surface and the polymer composition is in a softened state during and after the step of overmolding. In regard to claims 2-4 and 6-9, Ricci et al teach heating the metal surface before or after applying the adhesive polymer composition and before overmolding the metal surface (pg 3, ln 10-pg 6, ln 12); applying an organic or inorganic primer to the metal surface before applying a powder of an adhesive polymer composition to the metal surface (pg 3, ln 10-pg 6, ln 12); and applying an organic or inorganic primer to the metal surface before applying a powder of an adhesive polymer composition to the metal surface (pg 3, ln 10-pg 6, ln 12).

However, Ricci et al do not teach applying pressure during the step of applying heat to the metal surface. It should be noted that the step of injection molding in Ricci et al constitutes applying pressure to the metal surface. In regard to applying pressure to the metal surface, it is well-known in the molding art to apply pressure during a heating step in order to heat a preform more quickly. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply pressure during the heating step of Ricci et al (modified) in order to achieve the above result. In regard to claims 5 and 10-12, such are taught by the above combined teachings of Ricci and Chuang.

3. Applicant's arguments filed 2/24/04 have been fully considered but they are not persuasive. Applicant argues that maintaining the plastic of Ricci in a softened state

does not constitute softening. This argument is confusing because the plastic of Ricci must be heated in order to maintain it in a softened state. Without the heating of Ricci, the plastic of Ricci would not be softened. Applicant's argument appears to imply a step of cooling after the step of overmolding but before the step of heating. However, the instant claims do not disclose a step of cooling. Applicant also argues that Ricci and Chuang cannot be combined because Ricci teaches away from the disclosure of Chuang, i.e., Ricci teaches using a primer, as taught by Chuang, creates coupling arrangements prone to leakage. In response, applicant is reminded that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 571.272.1204. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaiani can be reached on 571.272.1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EHL

EDMUND H. LEE
Primary Examiner
Art Unit 1732



5/17/04